U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
South Mozart Street Mercury Spill - Removal Polrep

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region V

Subject: **POLREP #1**
Initial and Final
South Mozart Street Mercury Spill
B5ZL
Chicago, IL
Latitude: 41.7987617 Longitude: -87.6951291

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Date: 11/23/2010

Reporting Period: 11/16/2010 - 11/23/2010

1. Introduction

1.1 Background

Site Number:	B5ZL	**Contract Number:**	
D.O. Number:		**Action Memo Date:**	
Response Authority:	CERCLA	**Response Type:**	Emergency
Response Lead:	EPA	**Incident Category:**	Removal Action
NPL Status:	Non NPL	**Operable Unit:**	
Mobilization Date:	11/15/2010	**Start Date:**	11/16/2010
Demob Date:	11/23/2010	**Completion Date:**	
CERCLIS ID:	IL 000510523	**RCRIS ID:**	
ERNS No.:		**State Notification:**	IDPH
FPN#:		**Reimbursable Account #:**	

1.1.1 Incident Category

Emergency Removal Action

1.1.2 Site Description

On November 15, 2010, a resident at [redacted] S. Mozart Street in Chicago, Cook County, Illinois reported a mercury release from a broken blood pressure cuff. The resident reported the spill to the Illinois Department of Public Health (IDPH). Subsequently, IDPH called the release into the national response center. The release occurred in the bathroom, but elevated mercury vapor levels were observed on the first, second, and basement floors of the home. Mercury vapor concentrations ranged from 2,000 to 25,000 nanograms per meter cubed (ng/m^3) in the breathing zone.

On November 18, 2010, U.S. EPA was informed of a second residence, at [redacted] S. Justine Street Chicago, Cook County, Illinois, where the broken blood pressure cuff had originally been discovered. The residence contained several apartments. Elevated mercury vapor readings were observed throughout the first and second floor of the building. The apartment unit in which the device was abandoned was vacant at the time of the spill. Mercury vapor concentrations ranged from 10,000 to 40,000 ng/m^3 in the breathing zone.

1.1.2.1 Location

The Site includes two residences: 1) [redacted] South Mozart Street is located in a residential neighborhood approximately one block south of 51st and one block west of California and 2) [redacted] South Justine Street is also in a residential neighborhood one-half block east of Ashland Ave, and one block south of 47th.

1.1.2.2 Description of Threat

A broken blood pressure cuff, owned by a former renter of the residence on Justine Street, abandoned the blood pressure when they vacated the apartment. There current whereabouts of the former renters are unknown. The blood pressure cuff is the source of the mercury releases at both residences. The residence on South Mozart Street is inhabited by a family with several young children and infants as well as women of child-bearing age. According to the Agency for Toxic Substances and Disease Registry (ATSDR), "Exposure to

high levels of metallic, inorganic, or organic mercury can permanently damage the brain, kidneys, and developing fetus."

The family temporarily relocated to a hotel. The apartment unit on South Justine Street where the spill occurred is currently vacant; however, other apartment units of the residence are inhabited by small children.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results
On November 15, 2010 U.S. EPA mobilized to the site to conduct a preliminary inspection of the home on South Mozart Street with a Lumex RA915+ mercury vapor analyzer. The inspection revealed mercury levels in excess of 7,000 ng/m^3 in the breathing zone in both the bathroom and the kitchen. Elevated levels (ranging from 3,000 to 6,000 ng/m^3) were also observed in the basement and second floor units. The highest levels were observed in the bathroom at approximately 45,000 ng/m^3 (near the elemental mercury).

A preliminary inspection of the home on South Justine Street conducted on November 19, 2010 revealed mercury vapor concentrations in excess of 10,000 ng/m^3 in the bathroom and living room doorway. The highest levels were observed on the living room floor at approximately 40,000 ng/m^3.

2. Current Activities

2.1 Operations Section

2.1.2 Response Actions to Date

Emergency and Rapid Response Services (ERRS) were mobilized to the site on November 16, 2010 to begin clean-up activities. ERRS crews vacuumed the floor surfaces in the immediate release area and adjacent rooms with a mercury vacuum followed by two initial heating and venting cycles to evaporate the elemental mercury and remove the mercury vapor from the residence. After the heating and venting cycles, an additional screening was conducted to determine progress. Elevated mercury vapor concentrations remained in the bathroom, and kitchen, hallway, adjacent bedroom, and stairway leading to the basement. ERRS subsequently removed tile from the bathroom, hallway, and kitchen. ERRS crews also removed carpet from the adjacent bedroom and stairway leading to the basement. ERRS crews then washed and rinsed all adjacent areas with a solution of soap and water. ERRS also applied and removed Merc-X solution to the elevated areas on November 17th and continued with heating and venting cycles continued on November 17, and 18 until mercury levels in the breathing zone were consistently observed below 1,000 ng/m^3 throughout the entire residence.

Under the consultation if IDPH the residents were allowed to re-occupy the residence on November 19. A negative air unit with a HEPA and carbon filter was installed in the kitchen and run periodically over the weekend. Screening was conducted on November 22 and observed mercury vapor levels still below 1,000 ng/m^3 the concentration allowed by IDPH for reoccupation.

After discovery on November 18, ERRS crews mobilized to the second residence at South Justine Street to site to vacuum the elemental mercury from the bathroom and adjacent hallway. Subsequently ERRS initiated several heating and venting cycle. Screening revealed remaining contamination ERRS removed the bathroom ceramic tile as well as the sink and associated cabinet. ERRS then washed the floors with a solution of soap and water. ERRS conducted several heating and venting cycles continued until mercury levels in the breathing zone were consistently observed below 1,000 ng/m^3.

Clothing and personal effects, which were found to have mercury levels in excess of 10,000 ng/m^3 were containerized for disposal.

2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)

The owner of the abandoned blood pressure cuff can not be located at this time.

2.1.4 Progress Metrics

Waste Stream	*Medium*	*Quantity*	*Manifest #*	*Treatment*	*Disposal*
Pending					

2.2 Planning Section

2.2.1 Anticipated Activities

All removal activities have been completed at both residences. Associated mercury waste and contaminated materials are being stored in drums at the garage at the South Mozart Street residence while awaiting profiling for disposal.

Removed tile, carpet, and fixtures will be replaced by a sub-contractor at both residences.

2.2.1.1 Planned Response Activities

No further actions anticipated.

2.2.1.2 Next Steps

All associated waste will be removed from the Site and shipped for proper disposal by ERRS.

2.2.2 Issues

The family at the South Mozart Residence is primarily Spanish speaking. An ERRS contractor fluent in Spanish was utilized to help with communication.

2.3 Logistics Section

2.4 Finance Section

2.5 Safety Officer

2.6 Liaison Officer

2.7 Information Officer

3. Participating Entities

3.1 Unified Command

3.2 Cooperating and Assisting Agencies

U.S. EPA
Illinois Dept. of Public Health

4. Personnel On Site

U.S. EPA
Superfund Technical Assesment and Response Team (START) Weston Sollutions, Inc. emergency and rapid response services (ERRS) contractor ER, LLC.

5. Definition of Terms

6. Additional sources of information

6.1 Internet location of additional information/reports

Link to ATSDR Tox FAQs for Mercury:

http://www.atsdr.cdc.gov/toxfaqs/tf.asp?id=113&tid=24#bookmark06

6.2 Reporting Schedule

7. Situational Reference Materials